BRUHATH BANGALORE MAHANAGARA PALIKE

Name of the Agency	:	**Mr. Ramsingh Chandra Naik,** Contractor, Bangalore.
Name of the Work	:	Improvements to Roads, Drains and Asphalting to roads in Venkategowda Layout Kempapura 2nd Main in Ward No.07, Byatarayanapura, BBMP, Bangalore.
Estimate Cost	:	Rs.

QUALITY CONTROL REPORTS TO

Asst. Executive Engineer,
Kodigehalli Sub Division,
BBMP, Bangalore.

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QUALITY CONTROL REPORTS FOR

WET MIX MACADAM (WMM)

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Job No.: CTCE/BBMP/W.No07/RSCN/WMM/Gradation/2014-15

02.06.2014

GRADATION FOR WMM

MORTH TABLE-400-11

Client : **Asst. Executive Engineer,** Kodigehalli Sub Division, BBMP, Bangalore.

Agency : **Mr. Ramsingh Chandra Naik,** Contractor, Bangalore.

Name of Work : Improvements to Roads, Drains and Asphalting to roads in Venkategowda Layout Kempapura 2nd Main in Ward No.07, Byatarayanapura, BBMP, Bangalore.

Reference : EE/BTP/BBMP-E-TND/158/2013-14 Dated: 09.10.2013

Date of Testing : 02.06.2014

Material : WMM

Sample Location : WMM Mix Plant

Oven Dry Wt (gm): **7815**

Is Sieve Size in mm	Weight Retained (gm)	Cumulative Weight Retained (gm)	Cumulative % of Retained	Cumulative % of Passing	Spec.Limits
53	0	0	0	100	100
45	135	135	1.7	98.3	95-100
22.4	2510	2645	33.8	66.2	60-80
11.2	1285	3930	50.3	49.7	40-60
4.75	1020	4950	63.3	36.7	25-40
2.36	985	5935	75.9	24.1	15-30
0.600	860	6795	86.9	13.1	8-22
0.075	660	7455	95.4	4.6	0-8

Note:

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Job No.: CTCE/BBMP/W.No07/RSCN/WMM/Gradation/2014-15

02.06.2014

GRADATION FOR WMM

MORTH TABLE-400-11

Client : **Asst. Executive Engineer,** Kodigehalli Sub Division, BBMP, Bangalore.

Agency : **Mr. Ramsingh Chandra Naik,** Contractor, Bangalore.

Name of Work : Improvements to Roads, Drains and Asphalting to roads in Venkategowda Layout Kempapura 2nd Main in Ward No.07, Byatarayanapura, BBMP, Bangalore.

Reference : EE/BTP/BBMP-E-TND/158/2013-14 Dated: 09.10.2013

Date of Testing : 02.06.2014

Material : WMM

Sample Location : WMM Mix Plant

Oven Dry Wt (gm): **7890**

Is Sieve Size in mm	Weight Retained (gm)	Cumulative Weight Retained (gm)	Cumulative % of Retained	Cumulative % of Passing	Spec.Limits
53	0	0	0	100	100
45	180	180	2.3	97.7	95-100
22.4	2505	2685	34.0	66.0	60-80
11.2	1290	3975	50.4	49.6	40-60
4.75	1080	5055	64.1	35.9	25-40
2.36	965	6020	76.3	23.7	15-30
0.600	810	6830	86.6	13.4	8-22
0.075	860	7690	97.5	2.5	0-8

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GRADATION FOR WMM

MORTH TABLE-400-11

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Reference : EE/BTP/BBMP-E-TND/158/2013-14 Dated: 09.10.2013

Date of Testing : 02.06.2014

Material : WMM

Sample Location : WMM Mix Plant

Oven Dry Wt (gm): **8035**

Is Sieve Size in mm	Weight Retained (gm)	Cumulative Weight Retained (gm)	Cumulative % of Retained	Cumulative % of Passing	Spec.Limits
53	0	0	0	100	100
45	190	190	2.4	97.6	95-100
22.4	2250	2440	30.4	69.6	60-80
11.2	1315	3755	46.7	53.3	40-60
4.75	1250	5005	62.3	37.7	25-40
2.36	955	5960	74.2	25.8	15-30
0.600	895	6855	85.3	14.7	8-22
0.075	830	7685	95.6	4.4	0-8

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GRADATION FOR WMM

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Reference : EE/BTP/BBMP-E-TND/158/2013-14 Dated: 09.10.2013

Date of Testing : 02.06.2014

Material : WMM

Sample Location : WMM Mix Plant

Oven Dry Wt (gm): **8550**

Is Sieve Size in mm	Weight Retained (gm)	Cumulative Weight Retained (gm)	Cumulative % of Retained	Cumulative % of Passing	Spec.Limits
53	0	0	0	100	100
45	165	165	1.9	98.1	95-100
22.4	2650	2815	32.9	67.1	60-80
11.2	1295	4110	48.1	51.9	40-60
4.75	1205	5315	62.2	37.8	25-40
2.36	1050	6365	74.4	25.6	15-30
0.600	985	7350	86.0	14.0	8-22
0.075	800	8150	95.3	4.7	0-8

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02.06.2014

GRADATION FOR WMM

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Reference : EE/BTP/BBMP-E-TND/158/2013-14 Dated: 09.10.2013

Date of Testing : 02.06.2014

Material : WMM

Sample Location : WMM Mix Plant

Oven Dry Wt (gm): **7575**

Is Sieve Size in mm	Weight Retained (gm)	Cumulative Weight Retained (gm)	Cumulative % of Retained	Cumulative % of Passing	Spec.Limits
53	0	0	0	100	100
45	125	125	1.7	98.3	95-100
22.4	2515	2640	34.9	65.1	60-80
11.2	1085	3725	49.2	50.8	40-60
4.75	980	4705	62.1	37.9	25-40
2.36	965	5670	74.9	25.1	15-30
0.600	750	6420	84.8	15.2	8-22
0.075	805	7225	95.4	4.6	0-8

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GRADATION FOR WMM

MORTH TABLE-400-11

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Agency : **Mr. Ramsingh Chandra Naik,** Contractor, Bangalore.

Name of Work : Improvements to Roads, Drains and Asphalting to roads in Venkategowda Layout Kempapura 2nd Main in Ward No.07, Byatarayanapura, BBMP, Bangalore.

Reference : EE/BTP/BBMP-E-TND/158/2013-14 Dated: 09.10.2013

Date of Testing : 02.06.2014

Material : WMM

Sample Location : WMM Mix Plant

Oven Dry Wt (gm): **7935**

Is Sieve Size in mm	Weight Retained (gm)	Cumulative Weight Retained (gm)	Cumulative % of Retained	Cumulative % of Passing	Spec.Limits
53	0	0	0	100	100
45	120	120	1.5	98.5	95-100
22.4	2505	2625	33.1	66.9	60-80
11.2	1295	3920	49.4	50.6	40-60
4.75	1250	5170	65.2	34.8	25-40
2.36	985	6155	77.6	22.4	15-30
0.600	820	6975	87.9	12.1	8-22
0.075	810	7785	98.1	1.9	0-8

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Job No.: CTCE/BBMP/W.No07/RSCN/WMM/AIV/2014-15

02.06.2014

Aggregate Impact Value

IS: 2386 Part IV

Client	**Asst. Executive Engineer,** Kodigehalli Sub Division, BBMP, Bangalore.
Agency	**Mr. Ramsingh Chandra Naik,** Contractor, Bangalore.
Name of the Work	Improvements to Roads, Drains and Asphalting to roads in Venkategowda Layout Kempapura 2nd Main in Ward No.07, Byatarayanapura, BBMP, Bangalore.
Reference	EE/BTP/BBMP-E-TND/158/2013-14 Dated: 09.10.2013
Source / Location	WMM Plant
Type of Mix	Wet Mix macadam
Date of Testing	02.06.2014

Sl No.	Details	Trial No.		Average
		1	2	
1	Total weight of aggregate sample filling the cylindrical measure = W_1 g	380	382	
2	Weight of agregate passing 2.36 mm sieve after the test = W_2 g	79	80	
3	Weight of aggregate retained 2.36 mm sieve after the test = W_3 g	301	302	
4	Aggregate Impact value = percent fines	20.79	20.94	
	100* (W_2/W_1)%			20.87

Comments:

→ Maximum allowable Aggregate Impact value for Wet mix Macadam is 30%

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02.06.2014

Aggregate Impact Value

IS: 2386 Part IV

Client	**Asst. Executive Engineer,** Kodigehalli Sub Division, BBMP, Bangalore.
Agency	**Mr. Ramsingh Chandra Naik,** Contractor, Bangalore.
Name of the Work	Improvements to Roads, Drains and Asphalting to roads in Venkategowda Layout Kempapura 2nd Main in Ward No.07, Byatarayanapura, BBMP, Bangalore.
Reference	EE/BTP/BBMP-E-TND/158/2013-14 Dated: 09.10.2013
Source / Location	WMM Plant
Type of Mix	Wet Mix macadam
Date of Testing	02.06.2014

Sl No.	Details	Trial No.		Average
		1	2	
1	Total weight of aggregate sample filling the cylindrical measure = W_1 g	389	390	
2	Weight of agregate passing 2.36 mm sieve after the test = W_2 g	87	88	
3	Weight of aggregate retained 2.36 mm sieve after the test = W_3 g	302	302	
4	Aggregate Impact value = percent fines	22.37	22.56	
	100* (W_2/W_1)%			22.46

Comments:

→ Maximum allowable Aggregate Impact value for Wet mix Macadam is 30%

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02.06.2014

Aggregate Impact Value

IS: 2386 Part IV

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Agency	**Mr. Ramsingh Chandra Naik,** Contractor, Bangalore.
Name of the Work	Improvements to Roads, Drains and Asphalting to roads in Venkategowda Layout Kempapura 2nd Main in Ward No.07, Byatarayanapura, BBMP, Bangalore.
Reference	EE/BTP/BBMP-E-TND/158/2013-14 Dated: 09.10.2013
Source / Location	WMM Plant
Type of Mix	Wet Mix macadam
Date of Testing	02.06.2014

Sl No.	Details	Trial No.		Average
		1	2	
1	Total weight of aggregate sample filling the cylindrical measure = W_1 g	391	393	
2	Weight of agregate passing 2.36 mm sieve after the test = W_2 g	90	89	
3	Weight of aggregate retained 2.36 mm sieve after the test = W_3 g	301	304	
4	Aggregate Impact value = percent fines	23.02	22.65	
	100* (W_2/W_1)%			22.83

Comments:

→ Maximum allowable Aggregate Impact value for Wet mix Macadam is 30%

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Job No.: CTCE/BBMP/W.No.07/MP/WMM/S-T/2014-15 02.06.2014

DETERMINATION OF FLAKINESS INDEX & ELONGATION INDEX OF COARSE AGGREGATES

Client	**Asst. Executive Engineer,** Kodigehalli Sub Division, BBMP, Bangalore.
Agency	**Mr. Ramsingh Chandra Naik,** Contractor, Bangalore.
Name of Work	Improvements to Roads, Drains and Asphalting to roads in Venkategowda Layout Kempapura 2nd Main in Ward No.07, Byatarayanapura, BBMP, Bangalore.
Reference	EE/BTP/BBMP-E-TND/158/2013-14 Dated: 09.10.2013
Technical Reference	IS 2386(Part 1) 1963 (RA 2011)
Type of Mix	Wet Mix Macadam
Date of Testing	02.06.2014

Civil-Tech Consultants & Engineers Bangalore

Result : Flakiness Index = **11.20%**

Elongation Index = **13.25%**

Result : Combined Flakiness & Elongation index 24.45%

Comments:

Maximum allowable Flakiness & Elongation Index for Wet Mix Macadam is 30%

Note:

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Job No.: CTCE/BBMP/W.No.07/MP/WMM/S-T/2014-15 02.06.2014

DETERMINATION OF FLAKINESS INDEX & ELONGATION INDEX OF COARSE AGGREGATES

Client	**Asst. Executive Engineer,** Kodigehalli Sub Division, BBMP, Bangalore.
Agency	**Mr. Ramsingh Chandra Naik,** Contractor, Bangalore.
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Reference	EE/BTP/BBMP-E-TND/158/2013-14 Dated: 09.10.2013
Technical Reference	IS 2386(Part 1) 1963 (RA 2011)
Type of Mix	Wet Mix Macadam
Date of Testing	02.06.2014

Civil-Tech Consultants & Engineers Bangalore

Result : Flakiness Index = **11.98%**

Elongation Index = **13.98%**

Result : Combined Flakiness & Elongation index 25.96%

Comments:

Maximum allowable Flakiness & Elongation Index for Wet Mix Macadam is 30%

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DETERMINATION OF FLAKINESS INDEX & ELONGATION INDEX OF COARSE AGGREGATES

Client	**Asst. Executive Engineer,** Kodigehalli Sub Division, BBMP, Bangalore.
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Reference	EE/BTP/BBMP-E-TND/158/2013-14 Dated: 09.10.2013
Technical Reference	IS 2386(Part 1) 1963 (RA 2011)
Type of Mix	Wet Mix Macadam
Date of Testing	02.06.2014

Civil-Tech Consultants & Engineers Bangalore

Result : Flakiness Index = **12.85%**

Elongation Index = **13.05%**

Result : Combined Flakiness & Elongation index **25.90%**

Comments:

Maximum allowable Flakiness & Elongation Index for Wet Mix Macadam is 30%

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